

## **REMARKS**

### **Specification**

In the specification, the Abstract has been amended to correct minor editorial problems.

### **Summary**

Claims 1-36 stand in this application. Claim 37 has been canceled without prejudice. Claims 1, 10, 13, 15, 18, 23, 26, 28, 30, 33, 35 are currently amended. No new matter has been added. Favorable reconsideration and allowance of the standing claims are respectfully requested.

### **Examiner Interview**

Applicants would like to thank Examiner Park for conducting a telephone interview with Applicants' representative on November 15, 2007. During the interview, Examiner Park and Applicants' representative discussed the independent claims, the applied references, and the grounds of rejection. The substance of the interview is reflected by the foregoing amendments and the following remarks.

### **Allowable Claims**

We would like to thank the Examiner for indicating the allowability of claim 23 if amended to include all of the limitations of the base claims and any intervening claims.

Applicant respectfully submits that claim 23 has been amended to include all of the limitations of the base claim and any intervening claims.

**35 U.S.C. § 102**

At page 2, paragraph 3 of the Office Action claims 28, 29 and 35-37 stand rejected under 35 U.S.C. § 102 as being anticipated by Fischer et al., U.S. Patent Publication 2002/0089927 (hereinafter "Fischer"). Applicant respectfully traverses the rejection, and requests reconsideration and withdrawal of the anticipation rejection.

Applicant respectfully submits that to anticipate a claim under 35 U.S.C. § 102, the cited reference must teach every element of the claim. *See* MPEP § 2131, for example. Applicant submits that Fischer fails to teach each and every element recited in claims 28 and 29 and thus they define over Fischer. For example, with respect to claim 28, Fischer fails to teach, among other things, the following language:

detecting a channel quality or other criteria;  
reserving a portion of a transmit opportunity for expected retries based upon the detected channel quality or other criteria;  
transmitting an initial data burst during a first portion of the transmit opportunity; and  
transmitting retries during the reserved portion of the transmit opportunity.

According to the Office Action, this language is disclosed by the Fischer at Paragraph 57. Applicant respectfully disagrees. Fischer, at the given cite, in relevant part, states:

The frame descriptor includes a retry strategy (RS) field that instructs the TX frame manager 303 regarding the retry strategy for the corresponding frame, such as whether to retry the frame in the event that the initial delivery attempt is unsuccessful, and if unsuccessful, how many times to retry the frame. The frame

descriptor may further include a frame lifetime (FL) field that includes a timing parameter that specifies a retry time duration. The retry time duration may be used instead of a retry number or in addition thereto. If a retry count is specified along with a frame lifetime, the frame is retried up to the specified number of times defined by the retry count or until expiration of the frame lifetime, whichever occurs first.

The Applicant respectfully submits that Fischer, arguably, teaches a retry strategy field that statically provides a strategy (either number of tries or a specified duration) based on a predefined frame descriptor. In contrast, the claimed subject matter detects the channel quality or other criteria and then reserves a portion of the transmit opportunity for expected retries based upon the detected channel quality or other criteria. Furthermore, Fischer fails to disclose the reservation of a portion of a transmit opportunity prior to the transmit opportunity. It follows that Fischer also fails to use a reserved portion of a single transmit opportunity to transmit retries. Consequently, Fischer fails to disclose all the elements or features of the claimed subject matter. Accordingly, Applicant respectfully requests removal of the anticipation rejection with respect to claim 28.

Furthermore, Applicant respectfully requests withdrawal of the anticipation rejection with respect to claim 29, which depend from claim 28 and, therefore, contain additional features that further distinguish these claims from Fischer.

Claim 35 recites features similar to those recited in claim 28. Therefore, Applicant respectfully submits that claim 35 is not anticipated and is patentable over Fischer for reasons analogous to those presented with respect to claim 28. Accordingly, Applicant respectfully requests removal of the anticipation rejection with respect to claims 35. Furthermore, Applicant respectfully requests withdrawal of the anticipation

rejection with respect to claim 36 that depends from claim 35, and therefore contain additional features that further distinguish these claims from Fischer.

At page 4, paragraph 4 of the Office Action claims 15-17 stand rejected under 35 U.S.C. § 102 as being anticipated by Benveniste, U.S. Patent Publication 2002/0154653. Applicant respectfully traverses the rejection, and requests reconsideration and withdrawal of the anticipation rejection.

Applicant respectfully submits that to anticipate a claim under 35 U.S.C. § 102, the cited reference must teach every element of the claim. *See* MPEP § 2131, for example. Applicant submits that Benveniste fails to teach each and every element recited in claims 15-17 and thus they define over Benveniste. For example, with respect to claim 15, Benveniste fails to teach, among other things, the following language:

the processor adapted to calculate a probability of packet failure, to calculate an expected maximum number of retries based on the calculated probability of packet failure and a probability distribution, and to reserve a portion of a transmit opportunity for retries based upon the expected number of retries, the processor to transmit a data burst and any necessary retries within the same transmit opportunity.

According to the Office Action, this language is disclosed by Benveniste at Paragraphs 41 and 44. Applicant respectfully disagrees. Benveniste at the given cite, in relevant part, arguably teaches a backoff delay that is selected randomly from a statistical distribution. Benveniste discloses, at the given cite, in relevant part, “A separate number of transmission attempts is remembered or broadcast for each urgency class.” In contrast, the claimed subject matter calculates an expected maximum number of retries based on the calculated probability of packet failure and a probability distribution, and reserves a portion of a transmit opportunity for retries based upon the expected number of retries.

Further, the claimed subject matter transmits the data burst and any necessary retries within the same transmit opportunity. Beneviste arguably requires more than a single transmit opportunity to transmit retries. Consequently, Benveniste fails to disclose all the elements or features of the claimed subject matter. Accordingly, Applicant respectfully requests removal of the anticipation rejection with respect to claim 15. Furthermore, Applicant respectfully requests withdrawal of the anticipation rejection with respect to claims 16 and 17, which depend from claim 15 and, therefore, contain additional features that further distinguish these claims from Benveniste.

**35 U.S.C. § 103**

At page 5, paragraph 5 claims 1-11, 13 and 14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Fischer in view of Ergen (IEEE 802.11 Tutorial). Applicant respectfully traverses the rejection, and requests reconsideration and withdrawal of the obviousness rejection.

The Office Action has failed to meet its burden of establishing a *prima facie* case of obviousness. According to MPEP § 2143, three basic criteria must be met to establish a *prima facie* case of obviousness. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success

must both be found in the prior art and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). See MPEP 706.02(j).

As recited above, to form a *prima facie* case of obviousness under 35 U.S.C § 103(a) the cited references, when combined, must teach or suggest every element of the claim. See MPEP § 2143.03, for example. Applicant respectfully submits that the Office Action has not established a *prima facie* case of obviousness because the cited references, taken alone or in combination, fail to teach or suggest every element recited in claims 1-11, 13 and 14. Therefore claims 1-11, 13 and 14 define over Fischer and Ergen whether taken alone or in combination. For example, claim 1 recites the following language, in relevant part:

the processor to allocate a first portion of a transmit opportunity for an initial data burst and to allocate a second portion of the transmit opportunity for other operations including retries, the processor to transmit packets of the initial data burst during the first portion of the transmit opportunity, and perform other operations including retries of the initial data burst during the second portion of the transmit opportunity, the initial data burst and the other operations including transmitting retries of the initial data burst being transmitted in the same transmit opportunity.

According to the Office Action, this limitation is disclosed by Fischer at Paragraph 77. Applicant respectfully disagrees. Fischer at the given cite, in relevant part, states:

Thus, the scheduling entity 109 intends that frames F1-F3 be transmitted during the first interval I1 whereas the remaining frames F4-F6 are to be transmitted during the next sequential interval I2.

Applicant respectfully submits that Fischer, arguably, teaches a scheduling entity that schedules a series of frames to be transmitted in multiple, sequential and independent transmission opportunities, or intervals. By way of contrast, the claimed subject matter

allocates two portions within a single transmission opportunity by allocating a first portion of a transmit opportunity for an initial data burst and allocating a second portion of the transmit opportunity for other operations including retries. Based upon Figure 11 and paragraph 77 of Fischer, it is clear that Fischer fails to reserve a portion of a single transmit opportunity for retries. Therefore, Fischer fails to disclose, teach or suggest the missing language. Applicant respectfully submits that he is unable to find a teaching of the claimed subject matter within the cited portion of Ergen. Consequently, Fischer and Ergen, whether taken alone or in combination, fail to disclose, teach or suggest every element recited in claim 1.

Independent claims 10, 13, 18, 26, 30, and 33 recite features similar to those recited in claim 1. Therefore, Applicant respectfully submits that claims 10, 13, 18, 26, 30, and 33 are patentable and non-obvious over Fischer and Ergen for reasons analogous to those presented with respect to claim 1. Accordingly, Applicant respectfully requests removal of the obviousness rejection with respect to claims 1, 10, 13, 18, 26, 30, and 33.

Furthermore, if an independent claim is non-obvious under 35 U.S.C. § 103, then any claim depending therefrom is non-obvious. *See* MPEP § 2143.03, for example. Accordingly, removal of the obviousness rejection with respect to claims 2-9, 11, 12, 14, 19-22, 24, 25, 27, 31, 32, and 34 is respectfully requested. Claims 2-9, 11, 12, 14, 19-22, 24, 25, 27, 31, 32, and 34 also are non-obvious and patentable over Fischer and Ergen, taken alone or in combination, at least on the basis of their dependency from claims 1, 10, 13, 18, 26, 28, 30, and 33. Applicant, therefore, respectfully requests the removal of the obviousness rejection with respect to these dependent claims.

**Conclusion**

For at least the above reasons, Applicant submits that claims 1-36 recite novel features not shown by the cited references. Further, Applicant submits that the above-recited novel features provide new and unexpected results not recognized by the cited references. Accordingly, Applicant submits that the claims are not anticipated nor rendered obvious in view of the cited references.

Applicant does not otherwise concede, however, the correctness of the Office Action's rejection with respect to any of the dependent claims discussed above. Accordingly, Applicant hereby reserves the right to make additional arguments as may be necessary to further distinguish the dependent claims from the cited references, taken alone or in combination, based on additional features contained in the dependent claims that were not discussed above. A detailed discussion of these differences is believed to be unnecessary at this time in view of the basic differences in the independent claims pointed out above.

It is believed that claims 1-36 are in allowable form. Accordingly, a timely Notice of Allowance to this effect is earnestly solicited.



Appl. No. 10/602,393  
Response Dated December 10, 2007  
Reply to Office Action of September 10, 2007

Docket No.: 1020.P16723  
Examiner: Park, Jung H.  
TC/A.U. 2616

The Examiner is respectfully requested to contact the undersigned by telephone if such contact would further the examination of the present patent application.

Respectfully submitted,

KACVINSKY LLC



---

John F. Kacvinsky, Reg. No. 40,040  
Under 37 CFR 1.34(a)

Dated: December 10, 2007

KACVINSKY LLC  
C/O Intellevate  
P.O. Box 52050  
Minneapolis, MN 55402  
(724) 933-5529